

**REMARKS AND RESPONSE TO RESTRICTION REQUIREMENT**

The Examiner has required restriction of the invention under 35 U.S.C. 121 to one of the following groups:

**Group I:** Claims 1-3, 8, 18-22, 25 and 26 drawn to a method of increasing expression of Forming Homologue Overexpressed in Spleen (FHOS) in a subject comprising administering to the subject a FHOS activator wherein FHOS mRNA and protein levels are increased, wherein said activator is a FHOS protein, or a peptide or a peptidomimetic; or a method of increasing FHOS expression or activity in a cell comprising contacting said cell with a FHOS activator, a pharmaceutical composition comprising a cell which overexpresses FHOS protein and a pharmaceutically acceptable carrier, wherein said cell is a muscle cell or an adipocyte; classified in class 530, subclass 300, 350; class 514, subclass 2; class 435, subclass, 6, 7, 69.1.

**Group II:** Claims 1-3, 8, 18-22, 25 and 26, drawn to a method of increasing expression of FHOS in a subject comprising administering to the subject a FHOS activator wherein FHOS mRNA and protein levels are increased, wherein said activator is a FHOS antibody; or a method of increasing FHOS expression or activity in a cell comprising contacting said cell with a FHOS activator, a pharmaceutical composition comprising a cell which overexpresses FHOS protein and a pharmaceutically acceptable carrier, wherein said cell is a muscle cell or an adipocyte; classified in class 530, subclass 300, 350; 387.1; class 514, subclass 2; class 435, subclass 6, 7, 69.1.

**Group III:** Claims 1-3, 8, 18-22, 25 and 26, drawn to a method of increasing expression of FHOS in a subject comprising administering to the subject a FHOS activator wherein FHOS mRNA and protein levels are increased, wherein said activator is a non-peptide oligomer; or a method of increasing FHOS expression or activity in a cell comprising contacting said cell with a FHOS activator, a pharmaceutical composition comprising a cell which overexpresses FHOS protein and a pharmaceutically acceptable carrier, wherein said cell is a muscle cell or an adipocyte; classified in class 536, subclass 23.1; class 514, subclass 2; class 435, subclass 6, 7, 69.1; class 530, subclass 300, 350.

**Group IV:** Claims 1-3, 8, 18-22, 25 and 26, drawn to a method of increasing expression of FHOS in a subject comprising administering to the subject a FHOS activator wherein FHOS mRNA and protein levels are increased, wherein said activator is a small molecule; or a method of increasing FHOS expression or activity in a cell comprising contacting said cell with a FHOS activator, a pharmaceutical composition comprising a cell which overexpresses FHOS protein and a pharmaceutically acceptable carrier, wherein said cell is a muscle cell or an adipocyte; classified in class 514, subclass 2; class 435, subclass 6, 6, 69.1; class 530, subclass 300, 350.

**Group V:** Claims 4, 5, 6, 7, 15, 16, 17, 23 and 24, drawn to a method of treating diabetes and insulin resistance in a subject comprising administering to the subject a FHOS activator, wherein said activator is a FHOS protein, or a peptide or a peptidomimetic; or a method of treating a subject having diabetes or an insulin resistant subject comprising obtaining cells from said subject, treating said cells with an FHOS activator, and administering said treated cells to said subject, wherein said activator is selected from a group consisting of a FHOS nucleic acid molecule, a plasmid comprising a FHOS nucleic acid molecule, a FHOS adenovirus, and a FHOS retrovirus vector; classified in class 530, 350; class 536, subclass 23.1; class 435, subclass 69.1, 320.1; class 514, subclass 2, 44; class 424, subclass 93.1.

**Group VI:** Claims 4, 5, 6, 7, 8, 15, 16, 17, 23 and 24 drawn to a method of treating diabetes and insulin resistance in a subject comprising administering to the subject a FHOS activator, wherein said activator is a FHOS antibody; or a method of treating a subject having diabetes or an insulin resistant subject comprising obtaining cells from said subject, treating said cells with an FHOS activator, and administering said treated cells to said subject, wherein said activator is selected from a group consisting of a FHOS nucleic acid molecule, a plasmid comprising a FHOS nucleic acid molecule, a FHOS adenovirus, and a FHOS retrovirus vector; classified in class 530, subclass 300, 350, 387.1+; class 514, subclass 2, 44; class 536, subclass 23.1; class 435, subclass 69.1, 320.1; class 424, subclass 93.1.

**Group VII:** Claims 4, 5, 6, 7, 8, 15, 16, 17, 23 and 24 drawn to a method of treating diabetes and insulin resistance in a subject comprising administering to the subject a FHOS activator, wherein said activator is a FHOS non-peptide oligomer; or a method of treating a

subject having diabetes or an insulin resistant subject comprising obtaining cells from said subject, treating said cells with an FHOS activator, and administering said treated cells to said subject, wherein said activator is selected from a group consisting of a FHOS nucleic acid molecule, a plasmid comprising a FHOS nucleic acid molecule, a FHOS adenovirus, and a FHOS retrovirus vector; classified in class 536, subclass 23.1; class 514, subclass 2, 44; class 435, subclass 69.1, 320.1;; class 424, subclass 93.1.

**Group VIII:** Claims 4, 5, 6, 8, 15, 16 and 17, drawn to a method of treating diabetes and insulin resistance in a subject comprising administering to the subject a FHOS activator, wherein said activator is a FHOS small molecule; classified in class 514, subclass 2; or a method of treating a subject having diabetes or an insulin resistant subject comprising obtaining cells from said subject, treating said cells with an FHOS activator, and administering said treated cells to said subject, wherein said activator is selected from a group consisting of a FHOS nucleic acid molecule, a plasmid comprising a FHOS nucleic acid molecule, a FHOS adenovirus, and a FHOS retrovirus vector, classified in class 514, subclass 2, 44; class 536, subclass 23.1;; class 435, subclass 69.1, 320.1;; class 424, subclass 93.1.

**Group IX:** Claims 9 and 10, drawn to a method for identifying a compound for use in treating diabetes or insulin resistance in a subject comprising contacting a cell capable of expressing FHOS mRNA or FHOS protein with a test compound and determining the effect of said test compound on expression of FHOS mRNA or FHOS protein; classified in class 530, subclass 350, 300; class 435, subclass 69.1, 6, 7.1, class 536, subclass 23.1.

**Group X:** Claims 11 and 12, drawn to a method for identifying a compound for use in treating diabetes or insulin resistance in a subject comprising contacting a cell which expresses FHOS protein with a test compound and determining the effect of said test compound on a biological activity of the FHOS protein; classified in class 530, subclass 350, 300; class 435, subclass 7.1.

**Group XI:** Claims 13 and 14, drawn to a compound identified by the method of any one of claims 9-12, wherein the compound is formulated with a pharmaceutically acceptable carrier; classified in class 514, subclass 2.

Applicants hereby elect the Group IX invention (claims 9 and 10, drawn to a method for identifying a compound for use in treating diabetes or insulin resistance in a subject comprising contacting a cell capable of expressing FHOS mRNA or FHOS protein with a test compound and determining the effect of said test compound on expression of FHOS mRNA or FHOS protein) under 35 U.S.C. § 121 for prosecution in the present application, *with traverse*.

Applicants traverse the restriction requirement to the extent that Groups IX and X should be reformed as a single group. Applicants' grounds for traversal are set forth below.

It is Applicants' position that searches of the subject matter of Groups IX and X (newly formed Group IX) would be coextensive and there would be no undue burden on the Examiner to search the subject matter of the two groups. In particular, Applicants note that Groups IX and X each include claims directed to methods for identifying a compound for use in treating diabetes or insulin resistance in a subject. The individual Groups IX and X are specific for the endpoint measured in evaluating the effect of the test compound on FHOS, the endpoints being FHOS expression (Group IX) or activity (Group X). In view of the relatedness of the claimed subject matter, it is Applicants' position that search and examination of the claimed subject matter can be made without undue burden on the Examiner. In particular, Applicants submit that a search with respect to the expression levels of the molecule FHOS would identify art relevant to the claims of Groups IX and X. As such, Applicants respectfully request that Groups IX and X be reformed as a single group containing Claims 9-12.

Applicants reserve the right to traverse the restriction between the non-elected groups in this or a separate application.

Applicant believes no fee is due with this statement. However, if a fee is due, please charge our Deposit Account No. 12-0080, under Order No. ADY-009, from which the undersigned is authorized to draw.

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Respectfully submitted,

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